UNITED STATES PATENT AND TRADEMARK OFFICE

———————

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

———————

Ex parte PHILLIP W. BARNETT, ASHLEY M. BROOK,
and JOSEPH WYSE

———————

Appeal 2007-0593
Application 09/759,498[1]
Technology Center 2100

———————

Decided: November 8, 2007

———————

Before LANCE LEONARD BARRY, ALLEN R. MACDONALD, and
CAROLYN D. THOMAS, *Administrative Patent Judges*.

THOMAS, C., *Administrative Patent Judge*.

DECISION ON APPEAL

———————

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 139-158 entered January 9, 2004. We have jurisdiction under 35 U.S.C. § 6(b).

Appellants invented a computerized tool for facilitating analysis of the results of database searches so as to assist in making strategic and tactical business decisions. (Specification 1:9-13).

The appeal contains claims 139-158. Claims 1-138 are canceled. Claim 139 is the only independent claim. As best representative of the disclosed and claimed invention, claim 139 is reproduced below:

139. A computerized tool for facilitating forward looking strategic analyses of a collection of technical documents each having a searchable text and associated bibliographic information including a source and a date, comprising the computer-assisted steps:

performing a first search to identify a subset (second collection) of documents focused on a particular field,

identifying those documents in the subset relevant to each of "m" "actions";

identifying those documents in the subset relevant to each of "n" "objects";

combining each of the "m" actions with each of the "n" objects to construct an "m" x "n" array of "cells", such that each of the cells is associated only with the documents in said subset that were identified as relevant both to the respective action and to the respective object;

applying at least two scoring metrics to the bibliographic data for the documents associated with each of the cells, at least one of the scoring metrics including a time weighted predictive factor; and

generating a graph showing each of the applied scoring metrics for each of the array cells.

REFERENCES

The references relied upon by the Examiner in rejecting the claims on appeal are as follows:

Braden-Harder	US 5,933,822	Aug. 3, 1999
Hazlehurst	US 5,974,412	Oct. 26, 1999
Rivette	US 5,991,751	Nov. 23, 1999

The Examiner entered a Final Rejection on January 9, 2004 with the following rejections which are before us for review:

Claim 139 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Hazlehurst in view of Braden-Harder.

Claims 140-158 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hazlehurst in view of Braden-Harder and further in view of Rivette.

Appellants appealed from the Final Rejection and filed an Appeal Brief (Br.) on August 17, 2005 and a Summary to Amend Appeal Brief on April 7, 2006. The Examiner mailed an Examiner's Answer (Answer) on July 3, 2006. Appellants filed a Reply Brief (Reply Br.) on September 12, 2006.

We reverse.

We also use our authority under 37 C.F.R. § 41.50(b) to enter a new ground of rejection of claims 139-158 under 35 U.S.C. § 101.

ISSUES

Whether Appellants have shown that the Examiner erred in rejecting representative claim 139 based on obviousness.

FINDINGS OF FACT

The following findings of fact (FF) are supported by a preponderance of the evidence.

The Invention

1. Appellants state at page 10, lines 11-16 of the Specification, that "[t]he third operator shown is INTERRELATE SELECTED DATA 3005. Certain of the search terms ('actions') as given by DEFINE TERMS 3004 are used along one (vertical) axis of a two-dimensional array. Other search terms ('objects') as given by DEFINE TERMS 3004 is used along the orthogonal (horizontal) axis of a two-dimensional array. Together these search terms form the Landscape made up of cells, and the interaction of search terms within the Landscape."

2. Appellants further state at page 11, lines 18-21, that "Figure 4 illustrates one of the basic concepts of a technology Field composed of cells formed by the intersection of 'action' search terms along an y-axis and 'object' search terms along a y-axis. 'Action' and 'object' are for identification and have no significance beyond terminology. Examples of 'actions' and 'objects' include production methods and applications, technologies and applications, compounds and indications."

3. A cell 5001 is an 'intersection' of search terms (action 5004 x objects 5006). (Specification 12:12).

Hazlehurst

4. Hazlehurst discloses that "[t]he collator goodness space 153 is a one-dimensional space that reduces all information about a document to a

single real value representing the 'fit' of the document with a particular collator 108." (Col. 13, ll. 15-19).

5. Hazlehurst also discloses that "[t]he collator goodness space 153 is described by a list of values in the goodness table 153A (FIG. 11)." (Col. 13, ll. 19-20).

6. Furthermore, Hazlehurst discloses that "[t]he goodness table 153A (FIG. 11) contains goodness scores for every document in the collator's corpus of documents." (Col. 13, ll. 41-43).

Braden-Harder

7. Braden-Harder describes a "processing [that] involves production, comparison and weighting of matching logical forms respectively associated with a search query and each of the retrieved documents." (Col. 5, ll. 8-11).

8. Braden-Harder discloses that "[e]ach document that has at least one matching logical forms is heuristically scored, with each different relation for a matching logical forms being assigned a different corresponding predefined weight." (Abstract).

9. In Braden-Harder, "[e]ach remaining document is then heuristically scored. In particular, each different relation type, i.e., such as deep subject, deep object, operator and the like, that can occur in a logical form is assigned a predefined weight." (Col. 5, ll. 40-44).

10. Braden-Harder discloses "each different type of relation that can arise in a logical form triple is assigned a corresponding weight, such as those shown in table 800 in FIG. 8A. For example, as shown, illustrative relations Dobj, Dsub, Ops and Nadj may be assigned predetermined static numeric weights of 100, 75, 10 and 10, respectively." (Col. 16, ll. 21-27).

PRINCIPLES OF LAW

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck,* 947 F.2d 488, 493 (Fed. Cir. 1991). *See* MPEP 706.02(j). 8th Edition, Rev. 5, Aug. 2006.

The Supreme Court in *Graham v. John Deere,* 383 U.S. 1, 17-18 (1966), stated that three factual inquiries underpin any determination of obviousness:

> Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a prima facie case of obviousness. *In re Oetiker,* 977

F.2d 1443, 1445 (Fed. Cir. 1992). *See also In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741 (2007) (*citing In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellants. *Oetiker*, 977 F.2d at 1445. *See also Piasecki*, 745 F.2d at 1472.

Rejections on obviousness grounds cannot be sustained by mere conclusory statements. *KSR,* 27 S.Ct. at 1741 (*citing Kahn*, 441 F.3d 977, 988).

An obviousness analysis commences with a review and consideration of all the pertinent evidence and arguments. "In reviewing the [E]xaminer's decision on appeal, the Board must necessarily weigh all of the evidence and argument." *Oetiker*, 977 F.2d at 1445. "[T]he Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion." *In re Lee*, 277 F.3d 1338, 1344 (Fed. Cir. 2002).

Further, a rejection based on section 103 must rest upon a factual basis rather than conjecture, or speculation. "Where the legal conclusion [of obviousness] is not supported by the facts it cannot stand." *In re Warner,* 379 F.2d 1011, 1017 (CCPA 1967). *See also Lee,* 277 F.3d at 1344 and *Kahn,* 441 F.3d at 988.

Computer programs claimed as computer listings *per se,* i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not

"acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed **computer-readable medium** encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. MPEP § 2106.01; *See In re Lowry, 32 F.3d 1579, 1583-84 (Fed. Cir. 1994)*.

A series of steps which is not tied to a particular machine or apparatus, and which does not transform physical subject matter to a different state or thing, does not meet the statutory definition of a "process" and is not patentable subject matter. *Ex parte Lundgren, 76 USPQ2d 1385, 1401* (Barrett, J., concurring-in-part and dissenting-in-part).

ANALYSIS

It is our view that the Appellants have shown that the Examiner erred in rejecting representative claim 139 based on obviousness.

Specifically, it is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the invention as set forth in claims 139-158. Accordingly, we reverse.

With respect to claim 139, Appellants argue that "[n]either the Hazlehurst nor Braden-Harder references provide an analysis tool resulting in a combined matrix of cells, with each cell associated with documents in

the subset identified as relevant to both the respective 'm' action and to the respective 'n' object of the search conducted." (Br. 6:27-7:2). We agree.

The Examiner relies mainly upon Hazlehurst and states that "Hazlehurst discloses array of cells containing rows and columns in [the] 'Goodness Table' as shown in Fig. 11" (Answer 11:6-7) "that have actions and objects" (Answer 12:9-10). The Examiner further states that he "interprets this TABLE as [a] 'Matrix'" (Answer 12:10). The Examiner further supplies a dictionary definition of the term "matrix" (Answer 11:2-6) and the term "space" (Answer 11:14-16) in support of his contention that Hazlehurst discloses array of cells as claimed. We disagree.

It is our view that the Examiner has not shown where Hazlehurst teaches or suggests combining multiple search terms (i.e., "m" actions with "n" objects) to construct an "m" x "n" array of cells, such that each of the cells is associated only with the documents in said subset that were identified as relevant both to the respective action and to the respective object. While Hazlehurst discloses a "Goodness Table" (FF 5-6), such a "Goodness Table" is a one-dimensional representation or list of goodness scores for every document in the collator's (classifier's) corpus of documents (FF 4).

In other words, Hazlehurst's "Goodness Table" as shown in Fig. 11 merely discloses a list of goodness scores for individual documents. However, such "goodness scores" fail to be relevant to both the respective "m" actions and to the respective "n" objects. While the Examiner states that he merely interprets the "m" actions and "n" objects as search terms (Answer 10), we do not find and the Examiner has not identified any such search terms in the "Goodness Table" of Hazlehurst.

Appellants also describe the "objects" and the "actions" as search terms used along the horizontal and vertical axis of a two-dimensional array (FF 1). The cells of the array are formed by the intersection of the "action" search terms along an y-axis and the "object" search term along an x-axis (FF 2-3). Thus, the characterizing of the terms "actions" and "objects" as labels for search terms appears not to be disputed by either party. We also agree that the aforementioned terms are merely labels for search terms.

In that regard, the Examiner's assertion that Hazlehurst's "Goodness Table" discloses array of cells relevant to both actions and objects goes against the preponderance of the evidence. We also find that Braden-Harder does not disclose constructing an "m" x "n" array of cells as claimed.

Furthermore, the Examiner acknowledges that "Hazlehurst does not explicitly teach applying at least two scoring metrics…, at least one of the scoring metrics including a time weighted predictive factor." (Answer 5). Thus, the Examiner relies on Braden-Harder to teach the above noted feature (Answer 5).

Appellants contend that "the Hazlehurst reference does not provide the recited use of scoring metrics, where at least one of the metrics is a time weighted factor, for example the data from the bibliographic data." (Br. 7:16-18). In addition, Appellants contend that "[t]he Braden-Harder reference likewise fails to teach or disclose providing a time weighted predictive factor." (Br. 7:28-29). We agree.

While Braden-Harder discloses weighting of logical forms and assigning weights (FF 7), Braden-Harder merely discloses predefined weights (FF 8-10). In Braden-Harder, no time component is disclosed as being tied to such predefined weights.

In other words, Braden-Harder's illustrates in Fig. 8 predetermined static numeric weights that are assigned to each different type of relation that can arise in a logical form (FF 10). However, the Examiner has not shown how Braden-Harder's weights include a time weighted predictive factor.

In response to Appellants' argument that Braden-Harder's weighting factor is not time related, the Examiner inappropriately refers to the rejection of claim 154 and draws Appellants' attention to Rivette's bibliographic data disclosure (Answer 13-14). In doing so, the Examiner fails to address Appellants' arguments that Braden-Harder fails to disclose the time weighted predictive factor because Rivette is inapplicable here because the Examiner failed to use Rivette in the rejection of claim 139. Thus, the Examiner does not show where the combination of Hazlehurst and Braden-Harder teaches or suggests a time weighted predictive factor, as set forth in claim 139.

Thus, the Examiner's rejection rests on speculation and less than a preponderance of the evidence and thus, fails to provide sufficient reason for finding representative claim 139 unpatentable for obviousness under 35 U.S.C. § 103(a) over Hazlehurst and Braden-Harder.

Therefore, we reverse the rejection of claim 139 and of claims 140-158, which depend therefrom, for the same reasons as set forth above.

NEW GROUND OF REJECTION

In addition to reversing the Examiner's rejection of claims 139-158, this decision, pursuant to our authority under 37 C.F.R. § 41.50(b), contains a new ground of rejection.

11

Claims 139-158 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Claim 139 reproduced *supra*, is representative.

Specifically, claim 139 recites "[a] computerized tool for facilitating forward looking strategic analysis of a collection of technical documents . . . , comprising the computer-assisted steps: . . . ." Here we view the claimed "computerized tool" as a software program per se given Appellants' disclosure on page 2, lines 4-13 of the Specification regarding existing software search tools or programs which can locate patents based on words or phrases. However, at no point in the claims is the computerized tool embodied on a **computer-readable medium.** There are no structural and functional interrelationships defined between the computerized tool and other claimed elements of a computer which permit the computerized tool's functionality to be realized. No physical subject matter is transformed to a different state or thing. As a result, claim 139 and dependent claims 140-158 do not meet the statutory definition of a process, or any other statutory class of invention, and do not constitute eligible subject matter under 35 U.S.C. § 101.

37 C.F.R. § 41.50(b)

37 C.F.R. § 41.50(b) provides that, "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellants, *WITHIN TWO MONTHS FROM THE DATE OF THE DECISION*, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings (37 C.F.R. § 1.197 (b) as to the rejected claims:

(1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner …

(2) Request rehearing. Request that the proceeding be reheard under 37 C.F.R. § 41.52 by the Board upon the same record …

CONCLUSIONS

We conclude that Appellants have shown that the Examiner erred in rejecting claims 139-158 as being unpatentable under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2006).

DECISION

In view of the foregoing discussion, we reverse the Examiner's rejection of claims 139-158 under 35 U.S.C. § 103(a).

We also use our authority under 37 C.F.R. § 41.50(b) to enter a new ground of rejection of claims 139-158 under 35 U.S.C. § 101.

<u>REVERSED</u>
<u>37 C.F.R. § 41.50(b)</u>

eld

JEANNE E. LONGMUIR
2836 CORYDON ROAD
CLEVELAND HEIGHTS OH 44118